Notes upon the Habit of Pleocoma.

By J. J. Rivers.
(University of California.)

It is known that the autumn rain, when copious, makes the *Pleocoma* season and during the latter part of last week from the 14th to the 17th of November there was a rain-fall of five inches. The 18th was a fine *Pleocoma* day with warmth and sunshine. I visited well-known haunts of *P. Behrensi* but without reward. I found some burrows that had the correct look of a beetle tunnel but my tools were unequal to a proper investigation. The same day, meeting a friend, I was informed he had a "bug" for me that was drowned in a pool, formed by the heavy rain. This proved to be a large male of *P. Behrensi*. Mr. Oscar Baron found that *P. fimbriata* took wing in the rain, which observation is new. The late Dr. J. L. Leconte, in a letter some years ago, told me to try for the capture of *Pleocoma* by the means of artificial light in the night time. This method was not credited by some of my confreres because the general experience had been to find them flying in the day time and usually on the first fine day following the first heavy rain of the season. But the experience of Mr. Oscar Baron again steps in and corroborates Dr. J. L. Leconte's account of the habit of flying by night. Mr. Baron occupied a tent during a rain-storm in November, 1887, and while taking his evening meal was surprised by a visitation of a number of *P. fimbriata* entering his tent, charging upon his light and extinguishing it and then falling into his soup—thus becoming an unruly visitor.

These observations go to show that the habit of *Pleocoma* is not strictly diurnal, nor is it nocturnal, but that their habit is to travel both by day and night and that, too, either in the sunshine or in the rain.

November 21st, 1888.

A New Pleocoma.

By J. J. Rivers.
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This insect through the form of its antennæ shows a special affinity with two others of the genus and these three possessing fundamental correlated characters naturally come together as as a specialised section. The three referred to are *P. Rickseckeri*, *P. fimbriata* and the one now to be described. The new one is most like *P. Rickseckeri*.

Pleocoma puncticollis, n. sp.

Broadly oval, shining black, fimbriate with long black hair, having a tendency to rustiness. Head small, eyes large, clypeal horn reflexed bifurcate or deeply

emarginate, the apices being obtuse: vertex with horn only impressed at tip and scarcely emarginate, face of horn flat and granulated; genæ have the front margins straight with their apices obtuse or truncate. Antennæ stouter than in the allies, the 3rd joint being longer than the 4th and 5th combined, the 6th transverse, compressed on the upper part from which proceed several short setæ, the 7th joint transverse with longer and more numerous setæ, the 8th joint shorter and much narrower than the 11th, the 9th and 10th being nearly equal and longest. The color of the lamellate portion dull brown. Thorax twice as wide as long and wider than the elytra at their juncture; hind angles prominent, sides arcuate, front angles rounded: on the front margin originates a median channel intercepted by a bold swelling on the discal area; there are also slight depressions at the side and front margins; the whole area of the thorax is coarsely and closely punctured (almost rugosely punctate). Elytra of the usual form but the whole surface is smooth and shining, the geminate striæ being represented by rows of punctures at wide intervals and the general sculpture is of the faintest kind. The legs and abdominal surface clothed with long black hair, having a slight rustiness of tone. One specimen. Length, 26 mm.

Collected in November by G. W. Dunn in the Cuyamaca Mts., 8 miles from Julian, Cal.

P. puncticollis differs from *P. Rickseckeri* by the former being heavily punctured all over the disc of the thorax, while in the latter the same part is sparsely and lightly punctured; there is also the same amount of difference between the sculpturing of the elytra of the two but inversely, the surfaces of *P. puncticollis* being smooth while in *P. Rickseckeri* they are ornamented with wrinkled elevations.

North American Microlepidoptera.

By Prof. C. H. Fernald.
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Tortrix citrana, n. sp.

Expanse of wings, 20 mm. Head, palpi, thorax and fore wings, cinnamon brown, varying somewhat in different specimens. The palpi are porrect, compressed laterally, and the last joint is short and blunt. The thorax has a very small tuft behind which is tipped with ferruginous. The fore wings are crossed by an oblique, dark brown band which arises from the middle of the costa and the outer edge ends near the anal angle while the inner side becomes diffuse and shades the basal portion of the wing below the subcostal more or less completely. A triangular brown spot rests on the outer fourth of the costa. The surface of the wing, when viewed obliquely appears to be crossed by a large series of irregular stripes of lead-colored scales. The terminal line is dark brown when present, and the fringes are cinnamon brown. Hind wings white, tinged with steel-gray on the anal portion. Underside of the body and wings, pale yellowish.

Bred from Orange in California, by Mr. Coquillett. I have also seen one from the leaves of Solidago and one from Willow, all from California.